

ABSTRACT OF THE DISCLOSURE

Disclosed is a positioning system effective to cancel a moment reaction force, and it includes a movable portion and a reaction force absorbing mechanism for absorbing a propulsion reaction force to be produced by motion of the movable portion. A first distance between a reference plane and a gravity center position of the movable portion, being supported for movement along the reference plane, and a second distance between the reference plane and a gravity center position of the reaction force absorbing mechanism are made substantially equal to each other, and/or the second distance and a third distance between the reference plane and a motor movable element for propelling the movable portion along the reference plane are made substantially equal to each other.